Includes: PS9200 - 2 Channel Power Supply, 4012 - 1/2 Inch Preamp and Cable, PS9 (110 Vac) or PS29 (220 Vac) adaptor, WS1 3 Inch Windscreen, choice of Type 1 1/2 Inch Mic: +7012 - FF - 40 kHz - 15 mV/Pa +7013 - Pr -20 kHz - 12 mV/Fa +7046 - FF - 20 kHz-50 mV/Pa +7047 - Pr - 10 kHz - 40 mV/Pa ...and...
SC1 - Fitted Storage Case (shown) Options: "G" Gain Stage, SC2 Locking Case, 511 E Calibrator, 1 or 1/4 Inch Mics and Preamps, DM2-22 and more...

New PS9200Kit-1/4 Microphone System, PS9200Kit-1 1 Inch Microphone System.

S17 Simple Intensity™ Probe, rugged side by side configuration per IEC 1043, up to 100 mm Mic to Mic Spacing, 18 inch Extension w/Tripod Mount. Your choice of phased Matched 1/2 Inch Mic Pair, 7012 PM (15mV) or 7046I (50mV). PS9200 - 2 Channel Power Supply, 4012 (2) - 1/2 Inch Preamps and Cables, PS9 (110 Vac) or PS29 (220 Vac) adaptor, SC1 - Fitted Storage Case (shown) Options: "G" Gain Stage, SC2 Locking Case, 511 E Calibrator, DM2-22. Optional 7016PM 1/4 Inch Mics, requires AD0016x2. New S17BNC SYS ICP Sound Intensity Survey Probe.
**ACOUSTICAL INTERFACE™ SYSTEM**

**PS9200 Precision Microphone Power Supply Family**

- 2 and 4 Channel Models
- 6 way operation, Internal 9Vdc Battery
- AC Wall Adapter, External 6 to 16Vdc
- Over 40 hours battery life
- One Preamp for each Mic
- Power On/Off Battery Indicator
- AC Coupled Output
- Industry Standard Connectors: XLR or Lemo 7 pin
- Output - BNC Coaxial Locking Switch
- 
- Specification:
  - **Preamplifier Supply**
    - Voltage: +28VDC/5%
    - Current: 10 mA total
    - Noise: 0.001% typical
  - **Polarization Supply**
    - Voltage: +200 Vdc/2% max 0.5% typical
    - Current: Limited by 11 Meg Ohm source
    - Noise: 0.001% typical
  - **Switching Frequency**
    - 70kHz typical
  - **Signal Decoupling Capacitor**
    - 10uf Tantalum
  - **Power Requirements**
    - DC/AC Input 4.5 to 18Vdc
    - Operational Range 5.5 to 16Vdc
  - **Battery**
    - 9Vdc Alkaline (NEDA 1604A)

**4012 1/2 Inch Microphone Preamplifier**

- Detachable cable provides ease of installation, storage of Mic and Preamplifier, ease of repair
- Low power, Wide Frequency Response
- High Input Impedance
- Low noise

- Specifications:
  - Microphone Connection: 11mm - 60 UNS Thread
  - Power: 28 Vdc @ 700 uA typical
  - Insertion Loss: <0.25 dB per 22 Ohm (DM2-22)
  - Output Voltage: 7Vrms @ 1 kHz (28 Vdc)

- Frequency Response: 20Hz to 20kHz ± 0.5dB typical
- Noise: 22pF, A-weighted 1.5uV typical, Linear 20Hz to 20kHz - 3uV typical

- Options:
  - XLR & Lemo Versions: 1 inch Preamplifier - 4022 (4012+AD0012)
  - 1/4 Inch Preamplifier - 4010 (4012+AD0016)

**4048 ACOtron™ 1/2 Inch Phantom Preamp**

- Input Freq. Response @ 22pF: 50Hz to 20kHz (2dB)
- Noise Floor @ 22pF: 2uV/√Hz
- Output Performance 1600 Ohm Phantom: 1Vpp/√Hz into 1Kohm load, 1% THD
- Power Supply Sensitivity: <0.1 dB/√Hz
- Mic Mounting Thread: 11mm 60UNS
- Power/Output Connector: XLR 3-pin male

**7052PH and MK224PH System Packages**

- Includes: Mic, 4048 Preamplifier and 5116 ECL/Calibrator
- Custom High SPL Options - to >175 dB SPL (7017 milc)

**4212ACotron™ CCLD™ Powered (2-20 mA)**

- PCB ICP™ and BAK DeltaTron compatible
- New 7052SYS MK224SYS (mic + 4212) Combos
- ICP Adapters: PSIEPE4 & ICP1248

**THE SLARM™ SOLUTION**

Sound Level Alarms Wired and Wireless w/SLARMNet™

The SLARM™ family of SPL alarms feature:
- Wireless Alarm, Display, History and control
- Password Protected Security Layers
- Programmable: dB SPL Thresholds, Leq Periods, F/S response
- A, C and Z (Lin) Weighting - Selections, and Profiles
- Real-time Clock Calendar
- Multiple Profiles and History
- True RMS detection with > 100 dB Dynamic range
- 20 to 120 dB SPL, 40 to 140 dB SPL (Selectable ranges to 170 dB)
- 70525 Type 1.5° Titanium Measurement Mic (std)
- MK225 Type 1 (opt)
- Removable Mic/Preamplifier - to <300 feet
- Mic Calibration with 5116 (opt)
- Optically isolated Signal (Alarm) closures (50 V/50 mA)
- WS1 Windscreen standard
- WS-80T (treated - opt)
- 12-24 Vdc Power
- SA Series Control Accessories (Contact factory for SLARM™ and Accessory pricing)

**Specialty Preamps**

4012 (XLR)
4020 (Lemo)
4012RAS
4012RA

**APPLICATIONS:**
- Industrial
- Machine/Plant Noise
- Fault Detection
- Environmental
- Pass By Noise
- Community Compliance
- Amplifiers/Stage Monitors
- Equipment Yards
- Construction Sites
**ACOUSTICAL INTERFACE™ SYSTEM**

**7052SYS & 7052PH Type 1.5™ Measurement Microphone Systems**

7052S FF Capsule
WS1 Windscreend
4212 ACOtron™
ICP™ Preamp or
4048 Phantom
Preamp

Also Available:
MK224SYS
MK224PH
PSIEPE4
ICP1248
WS1-80T

**SI7 Sound Intensity Probe**

"Simple Intensity"

S/7KIT AVAILABLE FOR ADDITIONAL SAVINGS
INCLUDES: 1/2 INCH MATCHED PAIR, 2-4012
PREAMPS, W/CABLE
PS2000, AC ADAPTER AND SCF FITTED STORAGE
CASE & S7

NEW - S7BCF FOR USE WITH 4212 PREAMPS
AND 7052 CAPSULES
NEW - S7BNCSYS - ICP SI SURVEY SYSTEM

**PHASE MATCHED PAIRS (S7 KIT)**

Matching Specifications:
Phase: 31.5 Hz to 1 kHz less than 0.2 deg.
Less than 0.05 degrees typical @ 1 kHz
Less than 1.0 degree typical @ 5 kHz

Amplitude Matching:
0.5 dB Hz to 12.5 kHz
0.3 dB typical

Microphone Selection:
7012PM - Field to 40 kHz, 15 mV/Pa
7046L - Free Field to 20 kHz, 50 mV/Pa
7016PM - Field to 100 kHz, 3 mV/Pa

---

**EXTREMELY RANDOM™ NOISE GENERATOR**

Application:
Signal Source for:
Intensity Calibrators
Reverberation Testing
Vibration Applications
Electronic Applications
Psycho-audios

Features:
Pink and White Noise
1 kHz Sine Wave
Step/Variable Attenuator to -52dB
Crystal Controlled DDS
Direct Speaker Drive
Portable-Battery and AC Power
2 BNC Outputs

Specifications:
White Noise Generator
Pseudo Random
Line Spectrum - 119uHz
Sequence - +6.5 Days
Symmetrical Gaussian
1.0 Hz to 39 kHz (-3dB)
Pink Noise Generator
Filter: 6 poles, 5 Zeros
Slope: ±3dB/6Oct +/-.25dB
Distortion -35dB @ 1 Vrms
(1075Vrms, O dBm Optional)
Power Output (LR/1604A) 2 each
AC-12 Vac @ 500mA
PS12-(110Vac) or PS22-(220Vac) Supplied

---

**The “Alternative” Family**

**FREQUENCY RESPONSE**

**FREQUENCY**

**OPEN CIRCUIT OUTPUT**

**FREE FIELD (P)**

**PRESSURE (P)**

0 dB = IV/Pa

---

3025 White, Pink & 1kHz Precision Noise Generator
### Specifications for The “Alternative” Family of Products

<table>
<thead>
<tr>
<th>MODEL/TYPE (1)</th>
<th>TYPE 1</th>
<th>TYPE 1.5 &quot;E&quot; (Excellent Type 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACO Pacific Model No.</td>
<td>7022</td>
<td>7023</td>
</tr>
<tr>
<td>7012</td>
<td>7013</td>
<td>7014</td>
</tr>
<tr>
<td>7046</td>
<td>7047</td>
<td>MK224</td>
</tr>
<tr>
<td>7016</td>
<td>7017</td>
<td>7051</td>
</tr>
<tr>
<td>7052</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal Diameter</td>
<td>1 Inch</td>
<td>1/2 Inch</td>
</tr>
<tr>
<td>1/4 Inch</td>
<td>1/2 Inch</td>
<td></td>
</tr>
<tr>
<td>Response Characteristic</td>
<td>Free Field 0’ Pressure</td>
<td>Free Field 0’ Pressure</td>
</tr>
<tr>
<td>Free Field 0’ Pressure</td>
<td>Free Field 0’ Pressure</td>
<td>Free Field 0’ Pressure</td>
</tr>
<tr>
<td>OPEN CIRCUIT SPECIFICATIONS</td>
<td>Pressure</td>
<td>Pressure</td>
</tr>
<tr>
<td>Frequency Response ≤ 2dB</td>
<td>2Hz to 20kHz</td>
<td>2Hz to 10kHz</td>
</tr>
<tr>
<td>2Hz to 40kHz</td>
<td>2Hz to 20kHz</td>
<td>2Hz to 10kHz</td>
</tr>
<tr>
<td>2Hz to 20kHz</td>
<td>8Hz to 18kHz</td>
<td>5Hz to 12kHz</td>
</tr>
<tr>
<td>5Hz to 7kHz</td>
<td>3Hz to 12.5kHz</td>
<td>3Hz to 20kHz</td>
</tr>
<tr>
<td>Sensitivity dB re: 1V/Pa (mv/Pa)</td>
<td>-26dB (50)</td>
<td>-26dB (15)</td>
</tr>
<tr>
<td>-36dB (15)</td>
<td>-36dB (12.5)</td>
<td>-26dB (50)</td>
</tr>
<tr>
<td>-26dB (50)</td>
<td>-49dB (3)</td>
<td>-58dB (1)</td>
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<tr>
<td>Dynamic Range (3% THD) Typ.</td>
<td>8dB-150dB</td>
<td>18dB-160dB</td>
</tr>
<tr>
<td>12dB-145dB</td>
<td>14dB-145dB</td>
<td>35dB-164dB</td>
</tr>
<tr>
<td>45dB-175dB</td>
<td>18dB-148dB</td>
<td>20dB-148dB</td>
</tr>
<tr>
<td>Nom. Polarization Cartridge Cap.</td>
<td>60pF</td>
<td>18pF</td>
</tr>
<tr>
<td>20pF</td>
<td>18pF</td>
<td>6.5pF</td>
</tr>
<tr>
<td>18pF</td>
<td>18pF</td>
<td></td>
</tr>
<tr>
<td>Polarization Voltage</td>
<td>200 Vdc</td>
<td>0 Vdc</td>
</tr>
<tr>
<td>200 Vdc</td>
<td>0 Vdc</td>
<td></td>
</tr>
<tr>
<td>Temperature Coefficient</td>
<td>+0.007db/C°</td>
<td>(-30°C to +80°C &lt; +0.25db)</td>
</tr>
<tr>
<td>-10°C to +50°C</td>
<td>&lt;±0.1db (non condensing)</td>
<td></td>
</tr>
<tr>
<td>Influence of Humidity</td>
<td>&gt;900 years/db</td>
<td>&gt;900 years/db</td>
</tr>
<tr>
<td>35°C ± 5%</td>
<td>&gt;250 years/db</td>
<td></td>
</tr>
<tr>
<td>Long Term Stability 20°</td>
<td>&gt;900 years/db</td>
<td>&gt;250 years/db</td>
</tr>
<tr>
<td>MECHANICAL DIMENSIONS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Height of Cartridge with grid</td>
<td>16.5 mm</td>
<td>12.7 mm</td>
</tr>
<tr>
<td>16.7 mm</td>
<td>10.5 mm</td>
<td>13 mm</td>
</tr>
<tr>
<td>Without grid</td>
<td>17.0 mm</td>
<td>11.5 mm</td>
</tr>
<tr>
<td>15.5 mm</td>
<td>9.0 mm</td>
<td>12.0 mm</td>
</tr>
<tr>
<td>Diameter of Cartridge with grid</td>
<td>23.77 mm</td>
<td>13.2 mm</td>
</tr>
<tr>
<td>12.7 mm</td>
<td>7.0 mm</td>
<td>13.2 mm</td>
</tr>
<tr>
<td>Without grid</td>
<td>23.77 mm</td>
<td>12.7 mm</td>
</tr>
<tr>
<td>Thread for Grid or Coupler</td>
<td>23.11 mm</td>
<td>12.7 mm</td>
</tr>
<tr>
<td>Thread for Preamp Mounting</td>
<td>23.11 mm</td>
<td>12.7 mm</td>
</tr>
<tr>
<td>Equivalent Bruel and Kjaer Type</td>
<td>4145</td>
<td>4144</td>
</tr>
<tr>
<td>4133/4191</td>
<td>4134/4192</td>
<td>4165</td>
</tr>
<tr>
<td>4166</td>
<td>4115/4189</td>
<td>4135</td>
</tr>
<tr>
<td>4136</td>
<td>-</td>
<td>4116</td>
</tr>
<tr>
<td>Companion Preamplifier</td>
<td>4022 (4012 + AD0012)</td>
<td>4012</td>
</tr>
<tr>
<td>402E, 4012, 4016 (4012 + AD0016)</td>
<td>4116</td>
<td></td>
</tr>
<tr>
<td>4012E, 4212, 4048</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### ACCESSORIES

#### 511E & 511ES124 Sound Level Calibrator

- **1000 Hz:**
  - 0 dB Reference Point for: A,B,C,D, Weighting
- **2 Output Levels:** Permits Range testing
  - 94 dB SPL =1 Pa
  - 104 dB SPL (ES124-124dBSPL)
- **Accuracy:** Meets IEC942
  - ±0.3 dB @ 23°C - Type 1 L
  - ±0.5 dB 0 to 50°C

#### IEPE/ICP/MP Donor Adapters

- **ICP1248-Phantom**
  - XLR 3 Pin Male Connection
  - Conforms to industry standard balanced phantom power
  - Operates from 18-48 Vdc
  - 12Vdc with reduced performance
  - BNC Male Coaxial Cable Connection
  - Supplies 3-4 mA Constant Current from balanced phantom sources (custom mA available)

- **PSIEPE4-PS9200**
  - **Adapt your PS9200 to power your ACOtron™, ICP™ or CCLD devices.**
  - The PSIEPE4 supplies a low noise 4 mA constant current from the PS9200's 29Vdc.
  - **How you can operate your microphone on one channel while you power an accelerometer.**
  - BNC Male Coaxial Cable Connection

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ACOustics Begins with ACO™

Specifications subject to change without notice.